Nut Tree Pest Control

Fact Sheet FS1226

Cooperative Extension

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This publication is intended for the suburban homeowner or hobbyist who can benefit from the ornamental and shade value of nut trees as well as their nut crops for food when the nuts ripen each autumn. This Fact Sheet provides an introduction to some of the nut tree pests and their control on almond, chestnut, hazelnut (filbert), hickory, pecan and walnut.

Wildlife

In general, nut trees are vulnerable at all times to damage from wildlife including bear, deer, birds, game birds, mice, rabbits, raccoons, squirrels, groundhogs and skunks.

Control may be approached in two ways: direct reduction by removal or physical exclusion (hunting, trapping, poisons, repellents, fences, netting, bark guards other barriers; and indirect reduction by affecting population characteristics or habitat (introduce predators, harvest nuts immediately, mow grass and brush). Control techniques should be based on pest species, lawful options, economics, and person preference. For wildlife relocation information, look up njcacoa.org/relocation_removal.htm. For hunting information, look up njfishandwildlife.com/hunting.htm.

Weeds, Diseases, and Insects

Most nut trees have only a few serious pest problems. Good cultural and sanitation practices can be very helpful in minimizing injury from pests. Prune out dead or dying limbs; prune out lower limbs to promote better air circulation; keep trees in good health with fertilizer as determined by a soil test; irrigate when necessary; purchase disease-free trees from a reputable nursery; use resistant varieties when available; gather fallen nuts daily; and clean up leaves and other debris in the fall.

While nut trees are still less than 18 feet tall, many homeowners can use a compressed air sprayer or garden hose attachment to apply labeled pesticides, if that is the pest control of choice. Taller trees need more specialized power equipment (air blast or hydraulic sprayers), or contract the services of an arborist or a tree maintenance professional.

Weeds

Weeds compete with nut tress for water and nutrients. Weeds may provide cover for harmful insects, diseases and undesirable animals. Maintain a vegetation-free zone around the tree or in the tree row with careful hoeing or regular mowing. Keep vegetation away from the tree trunks to reduce rodent damage. Use black plastic, bark chips, straw or other forms of mulch to the edge of the tree's canopy to help control weeds and conserve moisture. Sod (tall fescues or hard fescues) between the tree rows in a nut tree orchard is acceptable.

Diseases

Most diseases are not extremely debilitating to nut trees. In most cases, they merely provide an unattractive appearance by causing blemishes on the leaves and nuts, for example powdery mildew, and leaf spots and blotches. Crown gall may affect all nut trees. Almond trees may be affected by plum pox and brown rot. Chestnuts may be affected by chestnut blight and *Phytophthera* root rot. Hazelnuts may get Eastern filbert blight (on European hazelnuts) and bacterial blight. Hickory may get *Poria* canker disease, anthracnose and witches' broom. The pecan diseases of concern are scab and pecan shuck disease. Walnuts may get bunch disease, *Juglans* dieback, *Fusarium* canker, anthracnose and blight.

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Insects

A few insects and mites cause economic damage to nut trees and its fruit. Some insects attack only the nut, but others will eat or suck the plant juices from leaves, stems or branches. Walnut insect pests include husk fly/maggot, codling moth larvae, and walnut weevil, caterpillar, and curculio. Pecan insect pests are: pecan shuckworm, weevil and curculio, leaf casebearer and spittlebug. Attacking hazelnuts are the filbert weevil and filbertworm. Hickory pests include fall webworm, hickory bark beetle, walnut caterpillar, tussock moth and leaf galls. Chestnut insect pests include chestnut weevil and oak weevil. Insects that attack almost any nut tree species are: aphids, leafhoppers, leafminer, lacebug, beetles, borers, mites, plant bugs, scale, tent caterpillar, bagworms, webworms, grasshoppers, casebearers, twig girdlers, cicadas, stinkbugs, and arachnids such as mites.

Beneficial Insects

Beneficial insects destroy other insects that injure nut trees. They include lacewing (the larvae feed on aphids, mealybugs, scale, thrip and mites); assassin bugs (feed on immature forms of insects); damsel bugs (feed on aphids, leafhopper and small larvae of other insects); ground beetles (feed on caterpillars and other insects); lady beetle (feed on aphids, spider mites scales and mealybugs); minute pirate bugs (feed on small insects, mites, eggs and larvae of many kinds of insects); praying mantis (young feed on aphids and other small insects, adults feed on many kinds of larger insects); spiders and predacious mites (large web-spinning spiders attack large flying and crawling insects; small hunting and jumping spiders attack small insects: flies, beetles, caterpillars, aphids and leafhoppers; predacious mites feed on spiders mites, aphids, thrips, and on larvae and eggs of many kinds of insects); syrphid flies (feed on insects, especially aphids); parasitic wasps (feed on caterpillars), and parasitic nematodes (for pecan weevil).

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